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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/729,191

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Gary L. Swoboda

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TEXAS INSTRUMENTS INCORPORATED

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EXAMINER

KHANNA, MADHU

ART UNIT

PAPER NUMBER

2451

NOTIFICATION DATE

DELIVERY MODE

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ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

uspto@ti.com

Office Action Summary	Application No. 10/729,191	Applicant(s) SWOBODA ET AL.	
	Examiner MADHU KHANNA	Art Unit 2451	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 January 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 6-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 6-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This communication is in response to claims 1-4 and 6-10 filed 01/15/2009.

Claims 1, 6 and 9 have been amended and claims 5 and 11 have been cancelled.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1, 6 and 9 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Specifically, the claims contain the term "single field". Based on the specification there is no support for a packet subgroup constituting a "single field", or a description of what makes up a "single field". FOR PURPOSES OF EXAMINATION it is assumed that a single field is a different term for a subgroup of packets.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 4 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant

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regards as the invention. Specifically, claim 4 includes reference to an implied header, defined in the specification as "one that is never actually inserted in the trace stream" (amended into the specification 05/05/2008), corresponding to an immediately following packet group. Claim 1 from which claim 4 depends on, states providing at least one header packet within the packet group, wherein a field in the at least one header packet indicates a number of packet subgroups provided in the packet group. It is therefore unclear how it is possible that a packet group is provided with at least one header packet which indicates a number of packet subgroups, as claimed in claim 1, while a packet group immediately follows an implied header which is "never actually inserted in the trace stream", as claimed in claim 4. FOR PURPOSES OF EXAMINATION it is interpreted that the implied header corresponds to a header which precedes an entire stream of data.

Response to Arguments

4. Applicant's arguments with respect to claims 1, 6 and 9 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

5. Claims 1-4 and 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maes (Pub. No.: US 2002/0184373) in view of Jensen (Pub. No.: US 2002/0143988) and in further view of Kapoor (US Patent # 5,818,852).

Regarding claim 1, Maes teaches a method of producing a packet group for use in a trace stream of packets, comprising:

- providing at least one header packet (Segment Header) within the packet group (Segment) [0114]; and

- arranging at least one plurality of further packets (frames) to form a corresponding at least one packet subgroup (Block) within the packet group (Segment) ([0114], see FIG. 3);

- wherein a first of said further packets (IntraFrame) includes first features [0111], wherein a remainder of said further packets (InterFrame) follow the first packet (IntraFrame) in said at least one packet subgroup (Block) (IntraFrame is the first frame of a Block, [0111]) and are a continuation of content contained in the first packet (each Block comprises a single IntraFrame and one or more InterFrames, [0111]) such that said at least one packet subgroup constitutes a single field in the trace stream (each Block can be decompressed on its own, [0113]), and wherein each of said remainder of said further packets (InterFrames) has a second feature that differs from said first extension portion (the InterFrames may be coded differently than the IntraFrames, [0112]). However, Maes does not explicitly disclose each of said further packets having an extension portion and a payload portion or wherein a first of said packets includes a

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first said extension portion and wherein each remainder of said further packets has a second said extension portion.

Jensen teaches wherein each further packet has an extension portion (first frame fragment indicator (FFFI), 315 of FIG. 3) and a payload portion (payload data, 305 of FIG. 3); and

wherein a first of said further packets (frame fragment 405₁ of FIG. 4) includes a first said extension portion (FFFI is set to TRUE, 430₁ of FIG. 4), and wherein each remainder of said further packets (405₂ and 405₃ of FIG. 4) has a second extension portion (FALSE, 430₂ and 430₃ of FIG. 4).

It would have been obvious to one of ordinary skill in the art at the time of the claimed invention to utilize an extension portion in each packet in the system/method of Maes as suggested by Jensen in order to be able to identify the first packet verses following packets of a subgroup when they are not otherwise coded differently. One would be motivated to combine these teachings because in doing so the system/method could be used in a wider range of implementations for various types of data. However, although Maes teaches a field in the header packet (Segment Header) which indicates the number of packets (frames) in the packet group (Segment), Maes-Jensen do not explicitly disclose a field in the header packet indicating a number of packet subgroups provided in the packet group.

Kapoor teaches wherein a field in at least one header packet indicates a number of packet subgroups provided in a packet group (the header may also include the number of subframes in the frame, column 3 lines 15-17).

It would have been obvious to one of ordinary skill in the art at the time of the claimed invention to utilize a header which includes the number of subframes in a frame in the system/method of Maes-Jensen as suggested by Kapoor because doing so would provide improved identification information to a receiver regarding a group (or frame). One would be motivated to combine these teachings because it would also allow for an indication of how to determine the end of a Segment which comprises a different number of frames per Block.

Regarding claim 2, Maes teaches the method as recited in claim 1 wherein said packet group (e.g. Speech Segment of FIG. 3) ends when a next packet of the trace stream (e.g. Silence Segment Header of FIG. 3) that immediately follows a packet of the last packet subgroup (third Block of the first Segment, FIG. 3) does not have the feature of the remainder of packets (InterFrame).

Jensen teaches the remainder of packets feature being a second extension portion (FALSE, 430₂ and 430₃ of FIG. 4).

Regarding claim 3, the method as recited in claim 2 wherein said next packet (e.g. Silence Segment Header of FIG. 3) begins a new packet group (second Segment of FIG. 3).

Regarding claim 4, Kapoor teaches the method as recited in claim 1 wherein said number of packet subgroups (subframes) permit identification of a frame associated

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with a header (the header may also include the number of subframes in the frame, column 3 lines 14-22).

Jensen teaches wherein said first (FFFI is TRUE) and second (FFFI is FALSE) extension portions, permit identification of a position in the frame [0029].

Maes teaches a trace stream (e.g. Silence Speech of FIG. 3) that is associated with an implied header packet (Silent Speech Segment begins a new Segment but does not include a File Header, such as the File Header preceding the Speech Segment, see FIG. 3) corresponding to an immediately following packet group (e.g. Silence Speech Segment of FIG. 3) (Given that Maes teaches Segment Headers which specify the number of frames per segment it would be obvious that the system/method will determine when one Segment ends and another begins without the need to insert an additional File Header, see FIG. 3).

Regarding claim 9, Maes teaches a method for transferring information from a target processor to a host processing unit in a trace stream of packets, the method comprising:

dividing the packets into packet groups (the RECOVC File further comprises one or more Segments, [0114]);

formatting each packet group (Segment) to include at least one header packet (corresponding Segment Header, [0114]); and

formatting each packet group (Segment) to include at least one packet subgroup (Block) containing a plurality of further packets (each Block comprises a single

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IntraFrame and one or more InterFrames, [0111]); further limitation(s) are substantially the same as those discussed on claim 1 above, same rationale of rejection is applicable.

Regarding claim 10, this method claim comprises limitation(s) substantially the same as those discussed on claim 2 above, same rationale of rejection is applicable.

6. Claims 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maes-Jensen-Kapoor in view of Williamson (Pub. No.: US 2003/0041166).

Regarding claim 6, Maes-Jensen-Kapoor do not explicitly disclose a host processing unit and a target processor, wherein the target processor transmits trace streams to the host processing unit, the trace streams permitting the host processing unit to reconstruct the operation of the target processing unit, and at least one of the trace streams comprising a sequence of packet groups.

Williamson teaches a processor test and debug system, the system comprising:

a host processing unit (first host, [0023]); and

a target processor (second host, [0023]), the target processor transmitting trace streams of packets to the host processing unit (the second software tool transmits data to the first software tool running on the first host, [0023]), the trace streams permitting the host processing unit to reconstruct (perform error checking and/or assemble) the

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operation of the target processing unit [0027], at least one of the trace streams comprising a sequence of packet groups (plurality of data entities, [0010]), each said packet group including limitation(s) substantially the same as those discussed on claim 1 above, same rationale of rejection is applicable.

It would have been obvious to one of ordinary skill in the art at the time of the claimed invention to utilize transmitting and debugging between a host and target processor in the system/method of Maes-Jenson-Kapoor as suggested by Williamson in order to ensure an efficient and error-free system. One would be motivated to combine these teachings because verifying the quality of the transmission medium and the transmitted data results in a user being provided with an enhanced and reliable system.

Regarding claim 7, this system claim comprises limitation(s) substantially the same as those discussed on claim 2 above, same rationale of rejection is applicable.

Regarding claim 8, this system claim comprises limitation(s) substantially the same as those discussed on claim 3 above, same rationale of rejection is applicable.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MADHU KHANNA whose telephone number is (571)270-3629. The examiner can normally be reached on Monday-Thursday 8:30-6.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee can be reached on 571-272-3964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/M. K./

Examiner, Art Unit 2451

/Salad Abdullahi/

Primary Examiner, Art Unit 2457